Med Calc Practice Problems

1. A physician writes orders to induce labor with an oxytocin infusion, beginning with 1 milliunit per minute. Oxytocin 30 units is diluted in 500 mL of lactated Ringer's solution. The oxytocin should be infused for how many milliliters per hour?
   a. _____mL/hr

2. During shift report, the nurse states that a patient is receiving an oxytocin drip at 11 milliunits/min. The Oxytocin concentration is 30 units in 500 mL of lactated Ringer's solution. The IV pump should be set for how many milliliters per hour?
   a. _____mL/hr

3. The physician orders magnesium sulfate 500 mg/h. The medication is supplied in 4 g/250 mL. Calculate the flow rate in milliliters per hour.
   a. _____ mL/hr

4. The physician gives orders to infuse 1 L of lactated Ringer's solution in 15 hours. Calculate the flow rate in milliliters per hour.
   a. _____ mL/hr

5. The physician orders famotidine 20 mg IV every 12 hours. The medication is supplied in 20 mg/100 mL to infuse over 30 minutes. Calculate the flow rate in milliliters per hour.
   a. _____ mL/hr

6. The physician orders a continuous IV hydromorphone drip at 0.5 mg/h. The medication is supplied in 10 mg/100 mL. Calculate the flow rate in milliliters per hour.
   a. _____ mL/hr

7. The physician orders a continuous IV morphine drip to infuse at 6 mg/h. The medication is supplied in 50 mg/50 mL. Calculate the flow rate in milliliters per hour.
   a. _____ mL/hr

8. The physician orders an IV of 40 mEq of potassium chloride in 500 mL 0.9% NS to infuse over 4 hours. Calculate the flow rate in milliliters per hour.
   a. _____ mL/hr

9. The physician orders erythromycin 1 g in 100 mL of D_5W to infuse in 30 minutes. Calculate the flow rate in milliliters per hour.
   a. _____ mL/hr

10. The physician gives orders to infuse 1,000 mL 0.9% NS at 200 mL/h for dehydration. Tubing drop factor is 10 gtt/mL. Calculate the flow rate in drops per minute. (Round to the nearest whole number)
   a. _____ gtt/min

11. The physician orders 1,000 mL lactated Ringer's to infuse at 125 mL/h for a postoperative patient. Tubing drop factor is 20 gtt/mL. Calculate the flow rate in drops per minute. (Round to the nearest whole number)
    a. _____ gtt/min

12. The physician orders 500 mL of NS to infuse at 175 mL/h for a patient with vomiting. Tubing drop factor is 15 gtt/mL. Calculate the flow rate in drops per minute. (Round to the nearest whole number)
    a. _____ gtt/min

13. The physician orders 1,000 mL of 0.45% NS to infuse at 90 mL/h. Tubing drop factor is 20 gtt/mL. Calculate the flow rate in drops per minute. (Round to the nearest whole number)
    a. _____ gtt/min

14. The physician orders vancomycin 500 mg in 250 mL of D_5W IVPB daily to infuse over 2 hours. Tubing drop factor is 15 gtt/mL. Calculate the flow rate in drops per minute. (Round to the nearest whole number)
    a. _____ gtt/min

15. The physician orders ampicillin 1 g in 100 mL of D_5W IVPB to infuse over 20 minutes. Tubing drop factor is 15 gtt/mL. Calculate the flow rate in drops per minute. (Round to the nearest whole number)

a. _____ gtt/min

16. The physician orders cefazolin 2 g in 50 mL of NS IVPB to infuse over 30 minutes. Tubing drop factor is 60 gtt/mL. Calculate the flow rate in drops per minute.
    a. _____ gtt/min

17. The patient has levofloxacin 500 mg ordered once daily. The levofloxacin is available in 100 mL of NS and should infuse over 1 hour. Using tubing with a 20 gtt/mL drop factor, how many drops per minute should the levofloxacin be infused? (Round to the nearest whole number)
    a. _____ gtt/min

18. The patient has levofloxacin 500 mg ordered once daily. The levofloxacin is available in 100 mL of NS and should infuse over 1 hour. Using tubing with a 60 gtt/mL drop factor, how many drops per minute should the flevofloxacin be infused? (Round to the nearest whole number)
    a. _____ gtt/min

19. The patient has levofloxacin 500 mg ordered once daily. The levofloxacin is available in 100 mL of NS and should infuse over 60 minutes. Using an IV pump, how many milliliters per hour should the levofloxacin be infused?
    a. _____ mL/hr

20. Tigecycline 50 mg IV once a day is ordered for a patient. The tigecycline is dissolved in 50 mL of NS and should infuse over 30 minutes. Using tubing with a drop factor of 10 gtt/mL, how many drops per minute should the tigecycline be infused? (Round to the nearest whole number)
    a. _____ gtt/min

21. Tigecycline 50 mg IV once a day is ordered for a patient. The tigecycline is dissolved in 50 mL of NS and should infuse over 30 minutes. Using tubing with a drop factor of 20 gtt/mL, how many drops per minute should the tigecycline be infused? (Round to the nearest whole number)
    a. _____ gtt/min

22. Tigecycline 50 mg IV once a day is ordered for a patient. The tigecycline is dissolved in 50 mL of NS and should infuse over 30 minutes. Using an IV controller, how many milliliters per hour should the tigecycline be infused?
    a. _____ mL/hr

23. Azithromycin 500 mg IV once a day is ordered for a patient. The azithromycin is dissolved in 250 mL of NS and should infuse over 1 hour. Using tubing with a drop factor of 20 gtt/mL, how many drops per minute should the azithromycin be infused? (Round to the nearest whole number)
    a. _____ gtt/min

24. Azithromycin 500 mg IV once a day is ordered for a patient. The azithromycin is dissolved in 250 mL of NS and should infuse over 60 minutes. Using tubing with a drop factor of 10 gtt/mL, how many drops per minute should the azithromycin be infused? (Round to the nearest whole number)
    a. _____ gtt/min

25. The patient has sodium ferric 125 mg ordered IV once daily for anemia. The sodium ferric is available in 100 mL of NS and should infuse over 1 hour. Using tubing with a 20 gtt/mL drop factor, how many drops per minute should the sodium ferric be infused? (Round to the nearest whole number)
    a. _____ gtt/min

26. The patient has sodium ferric 125 mg ordered once daily. The sodium ferric is available in 100 mL of NS and should infuse over 1 hour. Using tubing with a 60 gtt/mL drop factor, how many drops per minute should the sodium ferric be infused? (Round to the nearest whole number)
    a. _____ gtt/min

27. The patient has sodium ferric 125 mg ordered once daily. The sodium ferric is available in 100 mL of NS and should infuse over 60 minutes. Using an IV pump, how many milliliters per hour should the sodium ferric be infused?
    a. _____ mL/hr

28. The physician orders fluconazole 200 mg twice a day. The fluconazole is dissolved in 100 mL of NS and is to be infused over 1

hour. Using tubing with a drop factor of 20 gtt/mL, how many drops per minute should be infused? (Round to the nearest whole number)

a. _____ gtt/min

29. TPN 2,000 mL is ordered to infuse over 24 hours. Using an IV controller, how many milliliters per hour should be infused?

30. The patient has vancomycin 750 mg ordered IV once daily for an infection. The vancomycin is available in 250 mL of NS and should infuse over 1 hour. Using tubing with a 20 gtt/mL drop factor, how many drops per minute should the vancomycin be infused? (Round to the nearest whole number)

a. _____ gtt/min

31. The physician orders amiodarone IV drip at 0.5 mg/min for ventricular dysrhythmias. The medication is supplied in 900 mg/500 mL of D_5W. Calculate the flow rate in milliliters per hour.

a. _____ml/hr

32. The physician orders a lidocaine IV drip to infuse at 3 mg/min for premature ventricular contractions. The medication is supplied in 1 g/250 mL of D_5W. Calculate the flow rate in milliliters per hour.

a. _____ml/hr

33. The physician orders amoxicillin 200 mg po for a sinus infection. After the reconstitution, the medication is available as 125 mg/5 mL. How many milliliters will the nurse administer?
    a. _____ml

34. The physician orders loracarbef 350 mg po for pneumonia. After reconstitution, the medication is available as 200 mg/5 mL. How many milliliters will the nurse administer?
    a. _____ml

35. The physician orders cephalexin 250 mg po for strep throat. After reconstitution, the medication is available as 125 mg/5 mL. How many milliliters will the nurse administer?
    a. _____ml

36. The physician orders cefaclor 175 mg po for an ear infection. After reconstitution, the medication is available as 125 mg/5 mL. How many milliliters will the nurse administer?
    a. _____ml

37. The physician orders vancomycin 375 mg po for a staph infection. After reconstitution, the medication is available as 250 mg/5 mL. How many milliliters will the nurse administer?
    a. _____ml

38. The physician orders penicillin G 350,000 units IM for an infection. After reconstitution, the medication is available as 200,000 units/mL. How many milliliters will the nurse administer?
    a. _____ml

39. The physician orders cefazolin 500 mg IV for a urinary tract infection. After reconstitution, the medication is available as 330 mg/mL. How many milliliters will the nurse administer?
    a. _____ml

40. The physician orders heparin 5,500 units subcutaneous for deep vein thrombosis prevention. The medication is supplied in 10,000 units/mL. How many milliliters will the nurse administer? (Round final answer to the nearest hundredths place)
    a. _____ml

41. The physician orders methylergonovine 0.3 mg po twice a day for postpartum bleeding. The medication is supplied in 0.2-mg tablets. How many tablets will the nurse administer?
    a. _____tabs

42. The physician orders levothyroxine 100 mcg po daily for a patient with hypothyroidism. The medication is supplied in 0.1-mg tablets. How many tablets will the nurse administer?
    a. _____tabs

43. The physician orders lisinopril 15 mg po daily for hypertension. The medication is supplied in 5-mg tablets. How many tablets will the nurse administer?
   a. _____tabs

44. **Order:** Begin the heparin infusion. The patient's weight is 96 kg.
Infusion: Heparin 18 units/kg/h using a concentration of heparin 25,000 units in 250 mL of NS (100 units/mL)
Calculate the rate in milliliters per hour for the heparin infusion.
   a. _____ml/hr

45. **Order:** Begin the heparin protocol. The patient's weight is 80 kg.
Heparin Protocol
Bolus: Heparin 80 units/kg.
Calculate the total number of units for the heparin bolus.
   a. _____units

46. **Order:** Begin the heparin infusion. The patient's weight is 66 kg.
Infusion: Heparin 18 units/kg/h using a concentration of heparin 25,000 units in 250 mL of NS
Calculate the rate in milliliters per hour for the heparin infusion.
   a. _____ml/hr

47. The physician orders hydrocodone 10mg/acetaminophen 325 mg (Norco) 1 tablet every four hours. Available to the nurse is hydrocodone 10mg/acetaminophen 325 mg (Norco) per 1 tablet. The patient has received doses at 0900, 1300, 1700 in the last 12 hours. What is the maximum number of tablets that the patient can receive in the

next 12 hours? **Note**: 3 grams is the maximum amount of acetaminophen allowed for an adult patient in 24 hours.

a. _____tabs

48. The physician orders hydrocodone 5mg/acetaminophen 325 mg (Norco) 2 tablets every six hours. Available to the nurse is hydrocodone 5mg/acetaminophen 325 mg (Norco) per 1 tablet. The patient has received doses at 0900 and 1500 in the last 12 hours. What is the maximum number of tablets that the patient can receive in the
next 12 hours? **Note**: 4 grams is the maximum amount of acetaminophen allowed for an adult patient in 24 hours.

a. _____tabs

49. The physician orders hydrocodone 7.5mg/acetaminophen 325 mg (Norco) 2 tablets every four hours. Available to the nurse is hydrocodone 7.5mg/acetaminophen 325 mg (Norco) per 1 tablet. The patient has received doses at 0900, 1300, 1700, and 2100 in the last 12 hours. What is the maximum number of tablets that the patient can receive in the next 12 hours? **Note**: 3 grams is the maximum amount of acetaminophen allowed for an adult patient in 24 hours.

a. _____tabs

50. The physician orders hydrocodone 5mg/acetaminophen 325 mg (Norco) 2 tablets every four hours. Available to the nurse is hydrocodone 5mg/acetaminophen 325 mg (Norco) per 1 tablet. The patient has received doses at 0900 and 1500 in the last 12 hours. What is the maximum number of tablets that the patient can receive in the
next 12 hours? **Note**: 3 grams is the maximum amount of acetaminophen allowed for an adult patient in 24 hours.

a. _____tabs